

Docket No. AUS920010389US1

ABSTRACT OF THE DISCLOSURE

METHOD AND APPARATUS FOR AN IMPROVED BULK READ SOCKET CALL

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An apparatus and method for an improved bulk read socket call are provided. With the apparatus and method, a new field, `so_rcvlen`, is added to the socket structure that identifies the bulk read size requested by the user. The kernel of the prior art `recv()` function is also modified so that it sets the `so_rcvlen` to the size requested by the user prior to the `recv()` function going to sleep and waiting for the full data size requested by the user. A new flag, `SP_MSGWAITALL`, is also provided in the socket structure. In the TCP input processing, when data is received for a particular socket, the current setting of the `SP_MSGWAITALL` is checked. If the `SP_MSGWAITALL` flag is set, it is determined whether the amount of data stored in the socket receive buffer is less than the value of `so_rcvlen`. If not, the TCP input processing does not wake up the `recv()` thread. However, for every alternate segment, the TCP input processing sends back an acknowledgment (ACK). In the TCP output processing, when the `SP_MSGWAITALL` flag is set and the amount of data in the socket receive buffer is less than `so_rcvlen`, the full window is advertised. Once the TCP input processing determines that there is at least an amount of data in the socket receive buffer equal to the value of `so_rcvlen`, the TCP input processing will wake up the `recv()` thread and the `SP_MSGWAITALL` flag is reset.